

APPLICATION-SPECIFIC METHODS FOR TESTING  
MOLECTRONIC OR NANOSCALE DEVICES

ABSTRACT

Described are methods for implementing customer designs in programmable logic devices (PLDs). The defect tolerance of these methods makes them particularly useful with the adoption of "nanotechnology" and molecular-scale technology, or "molelectronics." Test methods identify alternative physical interconnect resources for each net required in the user design and, as need, reroute certain signal paths using the alternative resources. The test methods additionally limit testing to required resources so devices are not rejected as a result of testing performed on unused resources. The tests limit functional testing of used resources to those functions required in the user designs.